

Notice of Allowability

Application No.

09/823,947

Examiner

Elias Desta

Applicant(s)

BLEAKLEY, THOMAS E.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on October 28, 2006.
2. ☒ The allowed claim(s) is/are 1-6, 8, 10-12, 23, 24 and 26-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Detailed Action

Response to remarks

1. Applicant's argument, see amendment, filed October 10, 2006; with respect to the rejection of claims 1 and 23 have been fully considered and accepted. The rejection of claims 1-6, 11, 12, 23, 24, 27 and 28 has been withdrawn. Applicant current amendment is considered responsive since applicant has clearly pointed out the patentable novelty of claim 23 in view of Nadeau-Dostie et al. (U.S. Patent 6,442,722, hereon Nadeau-Dostie). Examiner acknowledges the cancellation of claims 7, 9, 13-22 and 25. The Examiner accepts the formal drawing (Figs. 1 and 2) filed on May 2, 2006.

Allowance

2. Claims 1-6, 8, 10-12, 23, 24 and 26-31 are allowed. The following is an examiner's statement of reasons for allowance:

In reference to claims 1, 23 and 29. Nadeau-Dostie teaches a system that comprises: a first pulse train input to a switch having a repeating high and low value at a first frequency, and a transition from the low value to the high value having a first edge sharpness (see Nadeau-Dostie, Fig. 4, ClockHS_raw) and a second pulse train input is switched in synchronization with the first pulse train where the pulse train having a repeating high and low value at a second frequency lower than the first frequency (see Nadeau-Dostie, Fig. 4, BistCLK). The switch selects an output from one of the first pulse train and the second pulse train to create an output pulse train to a

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transition fault test in an integrated circuit. Further, depending upon a selection signal, the system determines a pulse train input to the switch (see Nadeau-Dostie, Fig. 1, part 52). The selection signal is in synchronization with the first pulse train; wherein the switch switches from the second pulse train to the first pulse train and maintains the first edge sharpness of the first pulse train, and from the first pulse train to the second pulse train, during a low value of both the first and second control signal (see Nadeau-Dostie, Fig. 4, SE, SE2, Clock HS & Capture clock and column 11, lines 23+).

Unlike Nadeau-Dostie, the system in the claimed invention has a frequency changing circuit coupled between the input pulse train and the switch where the frequency of changing circuit includes a routine that multiplies and divides the frequency of the second pulse train wherein the output of the frequency changing circuit has substantially the frequency of the first pulse train. Further the system includes a smoothing circuit to improve the edge placement accuracy of the input pulse train.

Citation of pertinent prior art

- a. HÜser (U.S. Patent 5,142,169) teaches apparatus for identifying a second of two successive pulses of the same polarity in a pulse train of positive and negative pulses for generation of synchronization pulses for internal combustion engine.
- b. Fuller et al. (U.S. Patent 3,872,455) teaches physiological measurement display system.
- c. Ziegler (U.S. Patent 5,052,019) teaches pulse-generating sensor unit for remote sensing system.

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The remaining claims 2-6, 8, 10-12, 24, 26-28 and 30-31 are dependent upon claims 1, 23 and 29 and contain further limitations.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214. The examiner can normally be reached on M-Th (8:30-7:00).

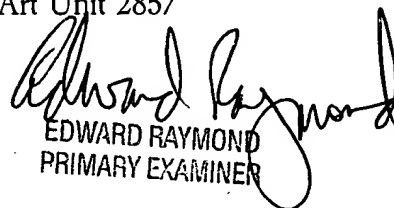
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Elias Desta
Examiner
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EDWARD RAYMOND
PRIMARY EXAMINER

- E.d

- December 7, 2006